

REMARKS

This Amendment and Response is made in reply to the Final Office Action mailed August 18, 2010, in which the Examiner:

objected to the drawings;
rejected claims 2, 6 and 8 under 35 U.S.C. § 102(b) as anticipated by Great Britain Patent No. 2,374,654 to Allport (“Allport”); and
allowed claims 3-5 and 7.

Claims 2-8 are pending in the subject Application. Claim 1 was previously canceled. Claims 2, 3 and 6-8 are independent claims. Claims 4 and 5 depend directly from claim 3.

Regarding the objection to the drawings, the Examiner argues that Figure 5 should include a legend indicating that which is illustrated therein is old. Final Office Action, page 2. Applicants respectfully disagree with the Examiner.

As is set forth in the enclosed Declaration Under 37 C.F.R. § 1.132 of Yoshikazu Kakinuma, a named inventor of the subject Application, Applicants respectfully submit that the damper pulley system shown in Figure 5 was conceived by the inventors and is not prior art. In order to eliminate any confusion in this regard, as is set forth above, Applicants have amended paragraphs 0003, 0008, 0010 and 0034 of the Specification herewith to remove the word “conventional” therefrom.

Accordingly, in view of the Rule 1.132 declaration filed herewith, and the foregoing Amendments to the Specification, Applicants respectfully submit that the system shown in Figure 5 of the subject Application is not prior art, and respectfully request that the objection to the drawings be withdrawn.

Regarding the rejections of claims 2, 6 and 8 under 35 U.S.C. § 102(b) as anticipated by Allport, claim 2 recites an isolation damper pulley attached to a crankshaft of an engine, comprising a damper unit including a hub having a mounting hole for placement on said crankshaft, an inside cylindrical portion provided to said hub so as to be concentric with a center axis of said mounting hole, and an annular mass body attached to an outside cylindrical portion

provided to said hub via a first elastic member; a pulley portion including a cylindrical portion, in an outer circumferential portion of which a pulley groove is formed and which is disposed outside said annular mass body, and a cover portion extending from one axial-directional end of said cylindrical portion in a central direction; a second elastic member whose one end is fixed to a side of said damper unit, whose other end is fixed to a side of said pulley portion, and to which a precompression is applied axially; and a pressing unit having a cylindrical fitting portion concentric with said center axis, and a pressing portion extending radially from said cylindrical fitting portion, said cover portion being axially pressed by said pressing portion, and said pressing unit applying an axial-directional pre-compression to said second elastic member, wherein said cylindrical fitting portion of said pressing unit is axially press-inserted into said inside cylindrical portion of said damper so as to be fitted coaxially, and a fixing position of said pressing unit is capable of being adjusted axially with respect to said inside cylindrical portion of said damper unit.

The Examiner argues that each of the features recited in claim 2 is shown or disclosed in Allport. Final Office Action, pages 2-4. Specifically, the Examiner argues that the annular elastomeric ring 23 of the annular resilient member 22 of Allport is a “second elastic member” with one end fixed to a side of the damper unit and another end fixed to a side of the pulley portion, to which a precompression is applied axially, and that disc 4 and hub member 8 of Allport are the “pressing unit” and “cylindrical fitting portion” inserted into an inside cylindrical portion of the damper unit, wherein a fixing portion of the pressing unit is capable of being adjusted axially with respect to the inside cylindrical portion of the damping unit. Final Office Action, page 3. Applicants respectfully disagree with the Examiner.

A claim is anticipated only if each and every element, as set forth in the claim, is either expressly or inherently described in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. Because the hallmark of anticipation is prior invention, the prior art reference must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements arranged as in the claim, in order to anticipate under 35 U.S.C. § 102.

Applicants respectfully submit that Allport does not anticipate claim 2, at least because Allport fails to show or disclose a second elastic member to which a pre-compression is applied axially, or a pressing unit applying an axial-directional pre-compression to the second elastic member, wherein a fixing portion of the pressing unit is capable of being adjusted axially with respect to an inside cylindrical portion of a damper unit.

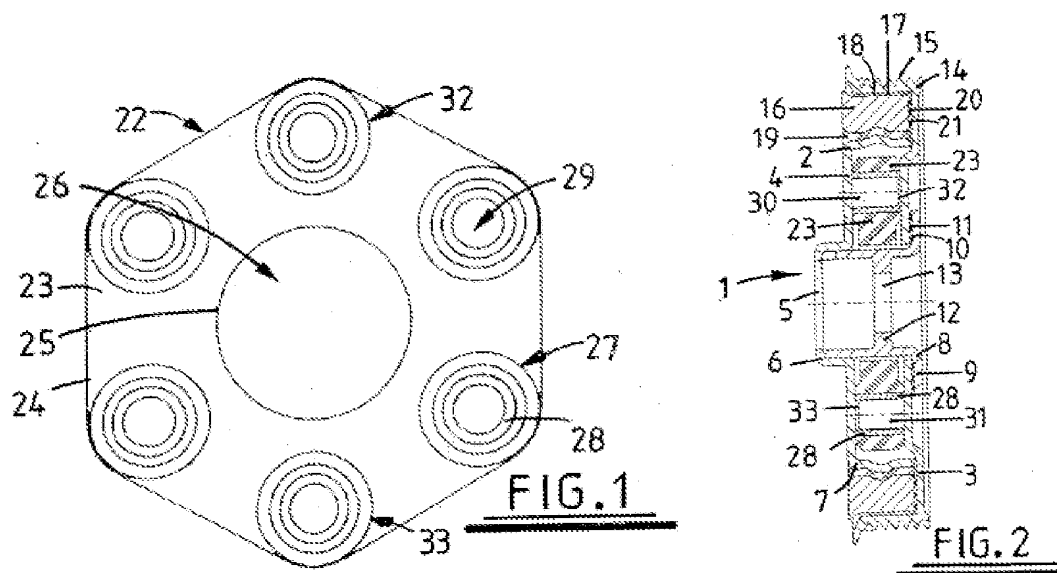
Allport discloses a device for isolating fluctuations in drive torque of a rotary drive shaft comprising a first annular member 2, a second annular member 3 and an annular resilient member 22 disposed between the first and second members 2, 3. *See* Allport, pp. 3-5, Abstract. The first annular member 2 is designed to connect to a rotary drive shaft, such as the crank shaft of an internal combustion engine, while the second annular member 3 is designed to connect to a driven auxiliary component. *See id.*, p. 3.

The annular resilient member 22 comprises an annular elastomeric ring 23 having a hexagonal outer periphery 24 and a circular inner periphery 25 defining a central opening 26 to receive a hub member 8 and a plurality of equi-angularly spaced apertures 27 each having a concentric inner sleeve 28 and a central aperture 29. *See id.*, pp. 4-5; FIGS. 1-2. Each sleeve 28 is configured to receive axially projecting cylindrical studs 30, 31 that are fixed to the first and second annular members 2, 3. *See id.*, p. 5; FIG. 2. Stud 30 is fixed to the first annular member 2, and is received in the aperture 32 of the annular resilient member 22. *See* Allport, pp. 4-5; FIG. 2. Similarly, stud 31 is fixed to the second annular member 3 and is received in the aperture 33 of the annular resilient member 22. *See id.*, pp. 4-5; FIG. 2.

During operation, a drive shaft applies a torque to the first annular member 2 via the hub member 8. Allport, p. 5. The torque is transferred from the first annular member to the second annular member via the resilient member 22. *Id.*

Applicants respectfully submit that a pre-compression may not be applied axially to annular elastomeric ring 23 of Allport, and that a fixing position of the disc 4 of Allport may not be adjusted axially, at least because studs 30, 31 and sleeves 28 interpose the annular elastomeric ring 23. As is shown in Figures 1 and 2 of Allport, reproduced below, annular resilient member 22 is supported

between the first and second annular members 2, 3 via the studs 30, 31, which prevent the axial compression deformation of the annular resilient member 22. Accordingly, even if the hub member 8 is pushed and inserted in the left direction of Figure 2 of Allport, reproduced below, the annular resilient member 22 cannot be deformed axially by compression, and the fitting position of the hub member 8 cannot be adjusted axially with respect to the first annular member 2 and the second annular member 3.



Therefore, as is shown in Figure 2 of Allport, above, stud 30 – which is fixed to first annular member 2 – rigidly abuts against the underside of second annular member 3, and stud 31 – which is fixed to second annular member 3 – rigidly abuts against the underside of first annular member 2. Allport, p. 5. In such a configuration, resilient member 22 is designed to be “compressed in a circumferential direction,” *see id.*, but cannot be compressed in the axial direction.

Accordingly, at least because the annular elastomeric ring 23 of Allport cannot be precompressed, and because a fixing position of the disc 4 and hub member 8 of Allport cannot be adjusted axially, Applicants respectfully submit that claim 2 is not anticipated by Allport.

To demonstrate the fundamental differences between the teachings of Allport and the invention recited in claim 2, the embodiment shown in Figure 1 of the subject Application is compared to the device shown in Figure 2 of Allport, both of which are shown below.

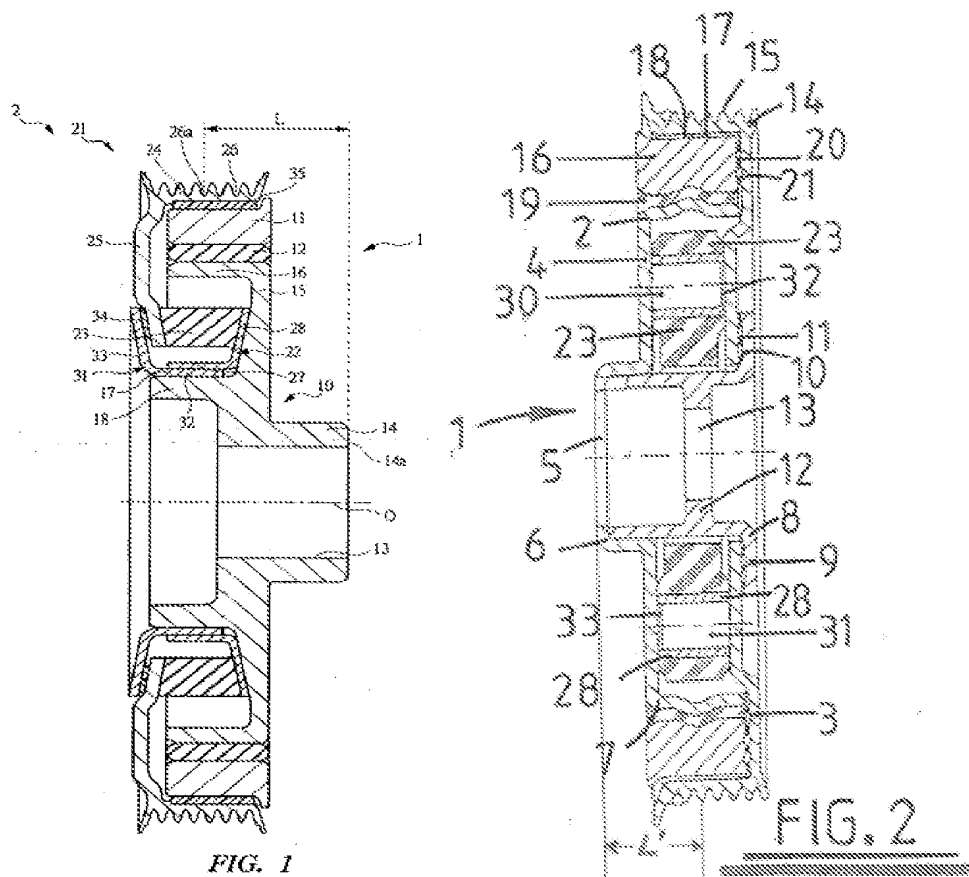


Figure 1 of the Subject Application, left, and Figure 2 of Allport, right

As is recited in claim 2, an isolation damper pulley comprising a damper unit 1 including a hub 10 having a mounting hole for placement on a crankshaft of an engine, an inside cylindrical portion 18 provided to the hub 10 so as to be concentric with a center axis of the mounting hole, and an annular mass body 11 attached to an outside cylindrical portion 16 provided to said hub via a first elastic member 12; a pulley portion 21 including a cylindrical portion 24 in an outer circumferential portion of which a pulley groove 26 is formed and which is disposed outside said annular mass body 11, and a cover portion 25 extending from one axial-directional end of said cylindrical portion in a central direction; a second elastic member 23 whose one end is fixed to a side of said damper unit 1, whose other end is fixed to a side of said pulley portion 21, and to which a precompression is applied axially; and a pressing unit 31 having a cylindrical fitting portion 32 concentric with said center axis, and a pressing portion extending radially from said cylindrical fitting portion 32, said cover portion 25

being axially pressed by said pressing portion 31, and said pressing unit 31 applying an axial-direction pre-compression to said second elastic member 23; wherein said cylindrical fitting portion 32 of said pressing portion 31 is axially press-inserted into said inside cylindrical portion 18 of said damper unit 1 so as to be fitted coaxially; and a fixing position of said pressing unit is capable of being adjusted axially with respect to said inside cylindrical portion 18 of said damper unit.

As is shown in Figure 1 of the subject Application, above, the positions of the cylindrical fitting portion 32 of the pressure ring and the inside cylindrical portion 18 of the hub 10 can be both pre-compressed and adjusted in the axial direction. For this reason, the axial-directional isolation length between a mounting end surface 14a of the damper section 1 and an axial-direction central pulley groove 26a, represented by the reference letter L in Figure 1, can also be adjusted. *See, e.g.*, Specification ¶¶ 0055, 0056. Conversely, as is shown in the modified version of Figure 2 of Allport reproduced above, and as is discussed above, stud 30 – which is fixed to first annular member 2 – rigidly abuts against the underside of second annular member 3, and stud 31 – which is fixed to second annular member 3 – rigidly abuts against the underside of first annular member 2, thereby preventing resilient member 22 or annular elastomeric ring 23 from being compressed in an axial direction, and thus preventing the length represented by the reference letter L' from being adjusted. Because of the rigid arrangement configuration of studs 30, 31 and first and second annular members 2, 3, Applicants submit that annular resilient member 22 and annular elastomeric ring 23 may be neither pre-compressed nor adjusted in the axial direction.

Accordingly, for at least the foregoing reasons, Applicants submit that claim 2 is not anticipated by Allport, and respectfully request that the rejection thereof be withdrawn.

Applicants further submit that claim 6 is not anticipated by Allport for at least the same reasons. Claim 6 recites an isolation damper pulley attached to the crankshaft of an engine comprising a damper unit including a hub having a mounting hole for placement on said crankshaft, a cylindrical first fitting portion provided to said hub so as to be concentric with a center axis of said mounting hole, and an annular mass body attached to an outside cylindrical portion

provided to said hub via a first elastic member; a pulley portion including a cylindrical portion, in an outer circumferential portion of which a pulley groove is formed and which is disposed outside said annular mass body, and a cover portion extending from one axial-directional end of said cylindrical portion in a central direction; a second elastic member, whose one axial-directional end is supported by said cover portion and to which a pre-compression is applied axially; a supporting unit having a second fitting portion concentric with said center axis and supporting the other axial-directional end of said second elastic member; and a pressing unit having a third fitting portion concentric with said center axis, and a pressing portion extending radially from said third fitting portion, said pressing portion pressing axially said cover portion to apply an axialdirectional pre-compression to said second elastic member, wherein said second fitting portion and said third fitting portion are pressinserted into said first fitting portion without being fitted to each other, thereby being fitted to said first fitting portion, and a fixing portion of said pressing unit is capable of being adjusted axially with respect to said first fitting portion of said damper unit.

As is set forth above regarding the rejection of claim 2, Allport fails to show or disclose either a second elastic member to which a pre-compression may be applied, or a fixing portion of a pressing unit that may be adjusted axially with respect to a first fitting portion of a damper unit. Moreover, Applicants note that the “supporting unit” recited in claim 6 is similar to that which was recited in allowed claim 3. Accordingly, Applicants submit that claim 6 is not anticipated by Allport, and respectfully request that the rejection thereof be withdrawn.

Finally, Applicants also submit that claim 8 is not anticipated by Allport for at least the foregoing reasons. Claim 8 recites a manufacturing method for an isolation damper pulley attached to a crankshaft of an engine, the method comprising the steps of preparing a damper unit including a hub having a mounting hole for placement on said crankshaft, a cylindrical first fitting portion provided to said hub concentric with a center axis of said mounting hole, and an annular mass body attached to an outside cylindrical portion provided to said hub via a first elastic member; preparing a pulley unit including a cylindrical portion, in an outer circumferential portion of which a pulley groove is formed

and which is disposed outside said annular mass body, a cover portion extending from one axial-directional end of said cylindrical portion and supporting one axialdirectional end of a second elastic member, and a supporting means provided with a second fitting portion concentric with said first fitting portion and supporting the other axial-directional end of said second elastic member; press-inserting axially a third fitting portion of a pressing means into said second fitting portion, the pressing means having a pressing portion opposed to said cover portion and said third fitting portion concentric with said center axis, and fitting coaxially said second fitting portion and said third fitting portion under a state of applying axially a predetermined pre-compression to said second elastic member by said supporting means and said pressing means; and press-inserting axially an inner one of said second fitting portion and said third fitting portion into said first fitting portion and fitting coaxially said inner one to said first fitting portion at a position where an axial-directional isolation length between an end surface of said damper unit and said pulley groove becomes a predetermined length.

As is set forth above with regard to the rejection of claim 2, Allport fails to show or disclose either a second elastic member to which a pre-compression may be applied, or a fixing portion of a pressing unit that may be adjusted axially with respect to a first fitting portion of a damper unit. Moreover, Applicants note that the “supporting means” recited in claim 8 is similar to that which was recited in allowed claim 3. Accordingly, Applicants submit that claim 8 is not anticipated by Allport, and respectfully request that the rejection thereof be withdrawn.

Applicants acknowledge and gratefully appreciate that the Examiner has allowed claims 3-5 and 7. For the foregoing reasons, Applicants submit that claims 2, 6 and 8 are also allowable, and prompt entry to this effect is respectfully requested.

Application No. 10/564,231
Final Office Action mailed August 18, 2010
Response to Final Office Action filed November 18, 2010

Applicants believe that no fees are due in connection with the filing of this Amendment and Response. If any fees are deemed necessary, authorization is hereby granted to charge any such fees to Deposit Account No. 13-0235.

Respectfully submitted

/Marina F. Cunningham/
Marina F. Cunningham
Registration No. 38,419
Attorney For Appellants

Customer No. 35301
MCCORMICK, PAULDING & HUBER LLP
CityPlace II, 185 Asylum Street
Hartford, CT 06103-4102
Tel: (860) 549-5290
Fax: (860) 527-0464